Brief Version the Process Standards for Mathematics

SMP #1 - Make sense of problems and persevere in solving them
Students will restate the problem in their own words and then develop a plan to solve the problem. They consistently evaluate their progress and modify their plan as needed. They ask themselves, "Does this make sense?"

SMP #2 - Reason abstractly and quantitatively
Students can take quantitative representation (like a number or equation) and represent it multiple ways (like an image, drawing, or objects). Additionally, they can represent the problem using real-life contexts. Students can also work in the reverse, taking real-life application and putting the information into a visual or quantitative representation.

SMP #3 - Construct viable arguments and critique the reasoning of others
Students can explain how they solved a problem using concise language and applied strategies. They can defend their reasoning as well as recognize their own mistakes. They can question others about their strategies also.

SMP #4 - Model with mathematics
Students can recognize math in real-life and also use math models to solve problems. They may use symbols, pictures, or concrete models to show their thinking and can show relationships to other ideas.

SMP #5 - Use appropriate tools strategically
Students know when to use certain tools to explore and solve problems. They can determine which tool is appropriate and use it appropriately. This could include hands-on tools as well as graphs, charts, visualization, and estimation.

SMP #6 - Attend to precision
Students are efficient and accurate in both their calculations and explanations. They use the correct terminology symbols, and units in their work.

SMP #7 - Look for and make use of structure
Students see and understand how concepts are organized and can break down structures to make sense of new problems. They also look for patterns in problems.

SMP #8 - Look for and express regularity in repeated reasoning
Students look for repeated reasoning in problems to develop shortcuts to make problem solving more efficient. The developed shortcuts are tested and then new learning is generalized to new, more difficult problems.